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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

In the Matter of the Application of Pacific Gas
and Electric Company for Approval of its
Electric Vehicle Infrastructure and Education
Program.

A.15-02-009
(Filed February 9, 2015)

(U 39 E)

**PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E)
ELECTRIC VEHICLE CHARGE NETWORK
QUARTERLY REPORT, SECOND QUARTER, 2018**

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Dated: August 1, 2018

Attorney for
PACIFIC GAS AND ELECTRIC COMPANY

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QUARTERLY REPORT, SECOND QUARTER, 2018**

Pursuant to Ordering Paragraph 20 of D.16-12-065, Pacific Gas and Electric Company (PG&E) hereby submits the attached EV Charge Network Pilot Program Quarterly Report for Second Quarter, 2018. Per D.16-12-065, the Report is being served on the service list for A.15-02-009 as well as the members of the Program Advisory Council.

Respectfully Submitted,

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By: /s/ Christopher J. Warner
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Attorney for
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Together, Building
a Better California

PG&E EV Charge Network Quarterly Report

Report Period: April 1, 2018 – June 30, 2018



Table of Contents

PAGE

1. Executive Summary	1
1.1 EV Charge Network Program Overview	
1.2 Summary for Quarter	
2. Customer Interest, Outreach, and Education	3
2.1 EV Charge Network Applications	
2.2 Sales and Marketing	
2.3 Online Tools & Resources	
2.4 Customer Experience and Satisfaction	
3. Electric Vehicle Supply Equipment Procurement	7
3.1 Procurement Process	
3.2 RFQ – EV Charge Owner Options	
3.3 RFP – EV Charge Sponsor Options	
3.4 Procurement Next Steps	
4. Charger Utilization and Load Management	9
4.1 Charger Utilization	
4.2 Load Management Plan	
4.3 Load Management Data	
5. Program Operations	10
5.1 Summary of Approved Sites	
5.2 Construction	
5.3 Operational Metrics	
5.4 Program Costs	
6. Supplier Diversity	12
7. Program Advisory Council Feedback	13
8. Conclusion	14
9. Appendix A	15
9.1 Summary of Program Advisory Council Comments and PG&E Response	
9.2 Direct Program Advisory Comments	
10. Appendix B	18
11. Appendix C	19

1. Executive Summary

1.1 EV Charge Network Program Overview

PG&E’s EV Charge Network (EVCN) program was approved on December 15, 2016 through a unanimous vote of the California Public Utilities Commission [Commission]. The purpose of the program is to increase access to charging for electric vehicles (EV) within PG&E’s service territory. The program intends to install 7,500 charging ports over a three-year period focusing on two key market segments, workplaces and multi-unit dwellings. The program includes deployment targets of 15% in Disadvantaged Communities (DACs), as well as in 20-50% in Multi-Unit Dwellings (MUDs). These targets aid in facilitating market entry for previously underserved communities and market segments. For participating site hosts, the program is organized into two ownership options: “EV Charge Owner” and “EV Charge Sponsor.”

EV Charge Owner: The majority of the electric vehicle service equipment (EVSE) (a minimum of 65%) will be owned by site hosts who are PG&E non-residential customers that have EV charging stations installed on their property. All site hosts may choose to participate under this program option. For these installations, PG&E will install and maintain the EV service connection (make ready infrastructure) to support their use. The site host will be responsible for buying and installing the EV charging station. At these locations, rebates will be offered to site hosts for the EV charging station. The rebates will be paid after the charging stations are installed and operational.

EV Charge Sponsor: At the discretion of the individual site host, PG&E may be requested to install, own, and maintain up to 35% (2,625) of the EV charging stations deployed. These EV charging stations will be installed in a turnkey operation to maximize site host convenience. EV Charge Sponsor site hosts must be multi-unit dwellings (MUDs) or workplaces located in disadvantaged communities (DACs).

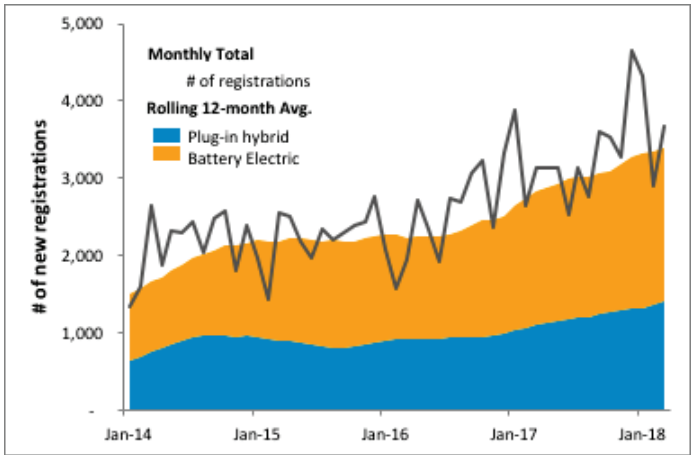
1.2 Summary for Quarter

The following section provides a brief summary of the milestones and actions performed throughout the quarter. This includes EV adoption in PG&E’s service territory, program participant interest, a summary of the Program Advisory Council (PAC) meeting, program milestones, and key barriers to implementation.

EV Adoption in PG&E Service Territory

The EV Charge Network program intends to support the adoption of EVs in PG&E territory by providing the infrastructure to support adequate charging and remove obstacles to adoption. With most recent data available through Q1 2018, this is the second consecutive quarter reporting over 10,000 EV registrations in PG&E territory, and represents a 13% improvement over Q1 2017.

FIGURE 1.1: EV REGISTRATIONS IN PG&E TERRITORY



SOURCE: EPRI analysis of vehicle registration data

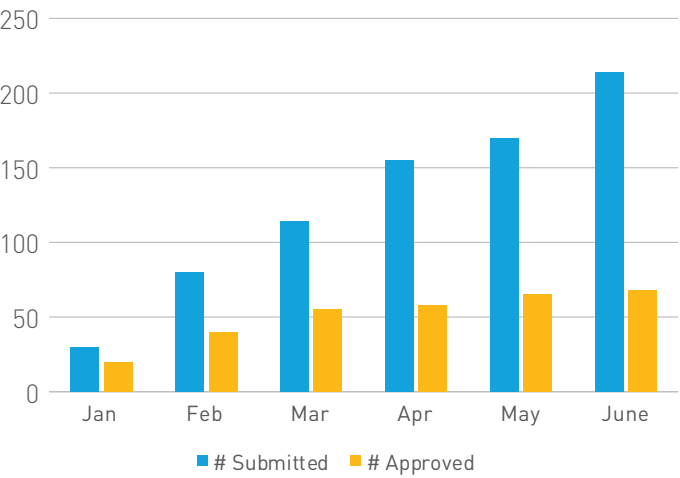
PG&E offers two residential EV rates for customers who own an EV. Both of these rates are time-of-use (TOU) rates and will vary based on time of day. The EV-A rate combines the customer’s EV electricity use with the main household consumption on the same meter whereas the EV-B rate tracks EV electricity consumption separately from household use through a new meter dedicated to charger. At the end of Q2 2018, 45,100 PG&E customers were enrolled in the EV-A rate and 348 customers were enrolled in the EV-B rate.



Program Participation Interest

PG&E officially launched the EV Charge Network program in January 2018. However, the program has been operating under a soft launch since late October 2017 when the online application was made available. PG&E has experienced steady interest from customers applying for participation in the EVCN program. Figure 1.2 shows the cumulative number of submitted and approved applications through Q2 2018.

FIGURE 1.2: NUMBER OF APPLICATIONS SUBMITTED AND APPROVED IN 2018 THROUGH Q2



As of June 30, 2018, PG&E had received 256 applications. At the close of Q2 2018, 56 sites had been approved and moved into final design and pre-construction phases, including 3 sites that have completed construction, installation, and activation of chargers. A total of 107 applications have been waitlisted or cancelled. More details on the status of applications can be found in Section 2 of this report. Further information on approved and in-progress sites can be found in Section 5 of this report.

Program Advisory Council (PAC)

On June 20, 2018, PG&E held the second Program Advisory Council meeting of 2018. Beginning in 2018, PG&E expanded the focus of the PAC meeting to address broader clean transportation programs and initiatives, creating the Clean Transportation Program Advisory Council. PG&E presented an update on the EV Charge Network program including marketing, education and outreach; procurement; and construction to date. PG&E also gave an update of the four SB350 Priority Review Projects: Medium/Heavy Duty Fleet Customer Demonstration; Electric School Bus Renewables Integration; Idle Reduction Technology; and Home Charger Information Resource Pilot. Finally, PG&E highlighted the final decision approving SB350 Standard Review Projects, FleetReady and Fast Charge programs, laying out a preliminary implementation timeline and the role of the PAC in providing input on program implementation. The Clean Transportation Program Advisory Council will continue to meet quarterly to discuss progress of the EV Charge Network, FleetReady, and Fast Charge programs.

Approximately 26 organizations, representing stakeholders from industry, government, and non-profits, attended in-person and online. This meeting provided updates on the number of applications received over the lifetime of the program as well as an update on procurement and construction. More details on the 2018 Q2 PAC meeting can be found in Section 7 and the Appendix of this report.

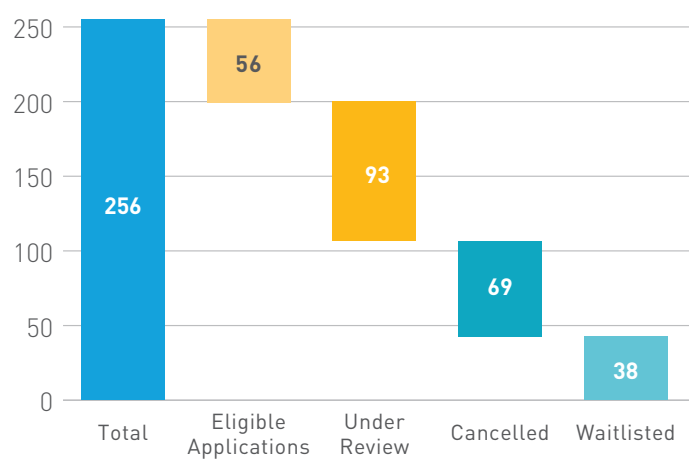
1. The Commission approved the EV Charge Network in D 16-12-065.
2. Disadvantaged Communities are defined as the top 25% most impacted census tracts within PG&E’s service territory per the CalEnviroScreen3.0, or the latest version.

2. Customer Interest, Outreach, and Education

2.1 EV Charge Network Applications

Since launch of the EV Charge Network program website and online application in Q3 2017, PG&E has received a total of 256 applications, over a third of which were received in Q2 2018. Table 2.1 shows the total number of applications received and the number of applications in each stage at the end of Q2 2108.

FIGURE 2.1 SUMMARY OF APPLICATION STATUS THROUGH Q2 2018



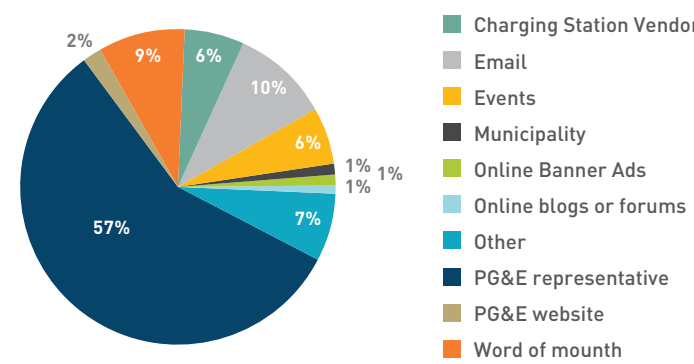
In Q2, the EVCN program received interest from a range of sites, with most applications coming from workplaces. PG&E began to see customers submit multiple applications for the same company or organization which are reviewed and processed together as a portfolio of sites for that single customer. Continued preference for the EV Charge Owner option is demonstrated through applications submitted in Q2. Table 2.2 shows the breakdown of property type, disadvantaged community status, and program participation across all applications received to date.

TABLE 2.2 APPLICANT PROFILE

	NUMBER OF APPLICATIONS	PERCENT OF APPLICATIONS
PROPERTY TYPE		
MUD	63	25%
Workplace	193	75%
DISADVANTAGED COMMUNITY STATUS		
Disadvantaged Community	62	24%
Other PG&E Territory	194	76%
PROGRAM PARTICIPATION		
EV Charge Owner	204	80%
EV Charge Sponsor	52	20%

Applicants reported hearing about the EVCN program from various sources. Outreach conducted by PG&E’s sales team contributed to over 50% of total applications submitted. Figure 2.1 depicts how applicants have heard of the EVCN program as indicated on the online application.

FIGURE 2.2: EVCN PROGRAM APPLICANT SOURCE OF PROGRAM KNOWLEDGE



Sites applying for the EVCN program span PG&E’s service territory geographically, but the majority are located in PG&E’s Central Coast region which includes South San Francisco to San Luis Obispo, including the South Bay Area. Approximately one-third of applications have been



received from sites located in the Bay Area with just under 50% coming from Central Coast regions.

Approximately 25% of submitted applications have been cancelled through the end of Q2 for various reasons, the two most common reasons, contributing to half of all cancelled applications, are due to program features or the project being cost prohibitive for PG&E. Common reasons for sites being cancelled include:

- **High anticipated project costs:** PG&E may cancel a site that has high estimated costs, often due to the required trenching distance from the transformer to the parking spaces, or the need for a transformer upgrade.
- **Customer budget constraints:** In some cases, participation in the EVCN program exceeds the customer's budget for EV chargers.
- **Program features:** Some customers are unable to meet program requirements, such as the minimum of 10 ports per site, or a site served by customer-owned infrastructure that PG&E cannot utilize under this program.
- **Land or legal challenges:** Participant concerns with the program terms and conditions or land easement can be a barrier to participation.

Q2 2018 Program Milestones

- **Enhanced eligibility assessment process.** Having previously identified high design phase attrition rates, a new eligibility assessment process was designed and implemented in Q2 to improve customer experience and secure commitment. PG&E identified the most common causes of sites being waitlisted or cancelled and found that approved program participants were moving into design without having a complete understanding of program participation requirements as well as not having the property owner or authorized decision-maker sign off on program terms and conditions and easement

language. PG&E onboarded dedicated customer support specialists to walk applicants through program details and provide step-by-step guidance to customers throughout eligibility assessment. PG&E also implemented an acceptance packet which includes a Customer Acceptance Agreement that must be signed by the authorized decision-maker for the property before confirming acceptance into the EVCN program.

- **Launched targeted customer outreach strategy.** PG&E launched a targeted customer acquisition strategy focusing on key geographies which is intended to generate a more consistent pipeline of applications while using program budget more efficiently. The key geographies PG&E is starting with are Oakland, Stockton, San Jose, Fresno, and Santa Rosa.
- **New customer tools.** PG&E released a cost calculator tool for EVCN applicants. The tool serves to inform customers on the upfront costs for participating in the EVCN program and includes the following features: available incentives based on the customer's site location and purpose (workplace or MUD), ability to include vendor quotes for the EVSE, and a summary of total cost based on EVSE ownership option. PG&E continued development of a rate-adder tool which will help customers determine the non-energy costs they may see on their electricity bill for their chargers and how to accurately include these costs in driver pricing.
- **New construction.** Continuing to see a steady interest from customers currently evaluating new construction projects, those that do not have existing PG&E infrastructure to build off of, PG&E has identified a couple pilot new construction projects to develop a contract and construction model that can be formalized and scaled to all interested parties that can meet certain requirements. PG&E expects to have a process flushed out by the end of the year.



Q2 2018 Challenges and Lessons Learned

- **EVSP data integration.** Some EV charging station service providers experienced challenges transmitting utilization data for newly activated sites. This required PG&E to troubleshoot with participating EVSPs to ensure data was being sent to PG&E and received as planned. PG&E will continue to monitor initial EVSP data integration and ensure information is being transmitted properly.
- **ADA siting issues.** EV ADA parking presents new regulations and compliance measures that construction and design teams are getting up to speed on. This has led to siting issues in the field as well as a reason for sites being cancelled in the case where ADA compliance is not found to be feasible given the existing site layout. PG&E continues to build a strong understanding of how ADA EV parking requirements are met with each site and integrate learnings from requirements of the local Authority Having Jurisdiction.
- **Customer acceptance lead time.** Since implementing the new eligibility assessment process and requiring a customer acceptance agreement to be signed, PG&E has seen longer lead time for applications to move through eligibility assessment and enter design as an approved site. Customers are seeking full cost information before confirming participation, which entails reaching out to vendors for quotes and oftentimes presenting program participation scope to leadership. The shift towards longer processing time in eligibility assessment is intended to result in a more efficient process downstream, ensuring that customers are prepared to move quickly through design and construction.
- **Education and support for developing charger pricing plans.** With the activation of three new sites, PG&E saw several questions from the customers about how to set appropriate pricing plans with their

EVSP. The key decision for the site host is whether to set up pass-through pricing or build a customized plan. PG&E took steps to provide direction to these customers and start planning for further education to deliver via the Rate-Adder Tool expecting to launch in July.

2.2 Marketing and Sales

A new strategy was developed for outreach that is intended to be more efficient in acquiring our target customers.

Key components of PG&E's strategy include:

- **Geographic focus:** a few key geographies were chosen to begin targeted outreach, with more to be added over time. Any site is welcome to apply across our geography, but a targeted approach ensures that marketing spend is used most effectively and costs are reduced by having crews travel short distances between consecutive projects. Current key geographies are Fresno, Stockton, Oakland, San Jose, and Santa Rosa. They were chosen using a combination of factors, including concentration of disadvantaged communities, commitment to electric vehicles, and availability of funding.
- **Target portfolio:** a target portfolio was developed that will be proactively built through outreach. A number of elements contribute to the success of this program, so PG&E established a set of targets that will help the program be successful across implementation metrics. The main components are CPUC targets for MUDs and DACs, with added components such as larger sites to balance the higher costs of small MUD or DAC sites. Performance metrics (composition of installed and submitted sites, attrition rates) are continually being evaluated to ensure DAC and MUD sites are prioritized, while balancing with overall program budgetary constraints.



Next steps include expanding our partnerships to increase adoption. Partners, especially on a local level, are key stakeholders to serve as advocates for promotion. Sample partners include local non-profits/working groups, CCAs, local governments, and trade associations. They can be very helpful in providing venues for PG&E to discuss EVCN with their constituents, providing feedback on pain points that can be addressed as we continue customer conversations, and in some cases becoming customers themselves.

2.3 Online Tools & Resources

In Q2 of 2018, PG&E enhanced the EV Charge Network program website with new and updated information, as well as tools and resources to assist customers in their decision-making process. Key accomplishments for the quarter are described below:

- The website now hosts an integrated cost calculator tool that helps customers understand the incentives and ownership options they are eligible for, and projects one-time and annual program costs for each ownership option based on inputs that the customer selects. Customers can use PG&E’s established ranges for each cost, or can enter costs provided in vendor quotes. Customers can edit their cost inputs to understand their obligations under different scenarios.
- PG&E developed a Rate Adder Tool to help customers implement their pricing for drivers if they select the Pass-Through pricing option. In

this option, drivers receive the A-6 or A-10 time-of-use (TOU) rate for the time during which they choose to plug in. The tool will allow customers to calculate a “rate adder”, which will distribute the non-energy charges on the customer’s rate (e.g. demand charge, customer charge) among the estimated electricity consumed from the chargers as a dollar per kilowatt-hour amount. This adder can be added directly to the customer’s TOU energy rates implemented at the chargers, to be passed through to drivers. This will allow customers to more accurately recover the total amount of their energy bill from drivers. The tool will be available on PG&E’s website in Q3 2018.

- PG&E also completed a competitive solicitation process for the creation of a Total Cost of Ownership (TCO) Tool. The goal of the TCO Tool is to accelerate EV ownership cost research time by providing residential customers with a tool that is quick, easy to use, and provides an accurate cost breakdown for owning an EV. The tool will capture total cost of ownership, available EV incentives, a range confidence tool, and a utility rate component. PG&E will launch the tool by the end of 2018.

2.4 Customer Experience and Satisfaction

PG&E is developing a customer satisfaction survey to be distributed to program participants after project completion. PG&E will report on this feedback when data is available and continue to respond to customer feedback through real-time process improvements.



3. Electric Vehicle Supply Equipment Procurement

3.1 Procurement Process

PG&E is conducting both a Request for Qualification (RFQ) and Request for Proposal (RFP) process to determine eligible EVSE packages that will be available to customers through the EV Charge Network program. The RFQ qualifies EV charging station vendors for the EV Charge Owner option and occurs on a quarterly basis. Vendors will continue to have the option to qualify EVSE packages every 3 months with quarterly RFQs. PG&E leveraged the RFP to qualify EV charging station vendors for the EV Charge Sponsor option, those that PG&E will own.

EVSE packages are inclusive of EVSE hardware, software, and network services. As in past quarters, the quarterly RFQ will identify additional vendors that offer EVSE packages that meet PG&E's minimum hardware, software, and network requirements. PG&E does not limit the list of vendors; all vendor EVSE packages that meet the minimum requirements will be approved.

3.2 RFQ – EV Charge Owner Options

Through the quarterly RFQ evaluation process, 19 vendors are currently approved under the Charge Owner option. The approved EVSE packages, including hardware, software, and network services are presented on PG&E's website to inform customers of vendor options, along with vendor contact information for further inquiry. Appendix C details the criteria all approved EVSE approved packages must meet.

In the first quarterly RFQ of 2018, 16 vendors expressed interest, four vendors applied, 1 new vendor was approved, and two existing vendors expanded their hardware offerings. The following are currently approved program vendors:

- ABM
- Andromeda Power LLC
- BTC Power (Broadband Telcom Power, Inc.)
- ChargePoint
- Electric MotorWerks, Inc.
- EV Connect
- EVBox
- EVoCharge LLC
- EVSE LLC
- Greenlots
- Kitu Systems
- Liberty Plug-ins
- National Car Charging
- Oxygen Initiative
- PowerFlex Systems
- SemaConnect, Inc.
- Shell New Energies
- Tellus Power Inc.
- Verdek

3.3 RFP – EV Charge Sponsor Options

Vendors approved through the first RFQ in 2017 were eligible for the RFP. The RFP is designed to select vendor(s) for the EV Charge Sponsor portion of the program. Under this option, program participants may request PG&E to install, own, and maintain up to 35% (2,625) of the EV charging ports deployed. The RFP process evaluates competitive price proposals for vendor EVSE packages to be offered under the EV Charge Sponsor option of the program. Vendors for the RFP must meet PG&E's minimum requirements for the RFQ process and will be evaluated on criteria including,



but not limited to, price, quality of bid, supplier diversity, environmental commitment, and financial stability. PG&E has selected its first vendor, EVBox, through the RFP process and continues to evaluate remaining finalists.

3.4 Procurement Next Steps

The Q2 RFQ process concluded July 1, 2018 and the Q3 RFQ will commence on July 15th. This process occurs quarterly, allowing for new vendors to participate in the program and new EVSE packages to be considered. As part of the RFP process, PG&E continues to evaluate remaining finalist vendors for the EV Charge Sponsor option after making its first selection of EVBox.



4. Charger Utilization and Load Management

4.1 Charger Utilization

In the first half of 2018, the first three sites were activated and PG&E began receiving charger utilization data from each site's EV Service Provider (EVSP). All three active sites are located at workplaces, and one of the three sites is located in a disadvantaged community (DAC). Table 4.1 shows the summary of active sites for Q2 2018.

TABLE 4.1 SUMMARY OF ACTIVE SITES IN Q2 2018

	NUMBER OF SITES	NUMBER OF PORTS
PROPERTY TYPE		
Workplace	3	34
MUD	0	0
DISADVANTAGED COMMUNITY STATUS		
In DAC	1	12
Outside DAC	2	22
DETAILED BREAKDOWN		
Workplace in DAC	1	12
Workplace outside of DAC	2	22
MUD in DAC	0	0
MUD outside of DAC	0	0

The three sites active in Q2 2018 had mixed levels of utilization during their first few months. Since all three active sites are located at workplaces, the load profile shows most charging occurring during the day, with a peak around 10 am and charging leveling off in the afternoon with an average plugged in time of 2.5 hours.

The early data shows some initial pricing trends. One of the sites is providing free charging as its custom pricing structure, and thus the data shows that many drivers had a charging session at zero cost. Another site is using a congestion pricing schedule that increases costs after the first couple of hours plugged-in. While there are some

outliers, the large majority of charging sessions were zero or low cost for drivers.

PG&E saw successful operations in Q2 2018, with charger uptime reported as greater than 99 percent. The minor outages that occurred were reported as network or communications errors.

As PG&E has only received data on 3 total sites, we intend to provide the following metrics when more data becomes available:

- Utilization rate by site
- kWh usage by price
- Average plugged in time, charging duration, charging power level

4.2 Load Management Plan

Program participants who select the custom pricing option will be required to participate in a load management plan to maintain the intent of a time-of-use rate in shifting energy consumption to times of low demand, and away from times of peak demand. PG&E will leverage its demand response (DR) pilots to call events to ask program participants to both increase and decrease EV charging load at certain times. In Q2 2018, PG&E developed customer materials and finalized implementation details. PG&E plans to begin enrolling active sites that choose to do custom pricing in the Load Management Plan in Q3 2018.

4.3 Load Management Data

As data is made available, we intend to provide data on Load Management Plan enrollment, events, and load impacts.

5. Program Operations

5.1 Summary of Approved Sites

Once an application is received, PG&E reviews the site for eligibility, evaluating site feasibility based on criteria including available electrical capacity, number of chargers to be installed, environmental risks, and estimated project costs on a per-port basis. If a site passes this eligibility review and a conceptual design of charger layout is approved by the program participant, it is approved for EVCN participation and is moved into design and pre-construction phases.

As of the end of Q2 2018, PG&E had received 256 applications, 56 of which have been approved as eligible for EVCN program participation. The program will install a minimum of 20% of sites at multi-unit dwellings (MUD) and 15% in disadvantaged communities. Figure 5.1 depicts the breakdown of property type, disadvantaged community status, and program participation for applications approved through Q2.

TABLE 5.1 APPROVED PROGRAM PARTICIPANT PROFILE

	NUMBER OF SITES	PERCENT OF SITES
PROPERTY TYPE		
MUD	22	39%
WORKPLACE	34	61%
DISADVANTAGED COMMUNITY STATUS		
Disadvantaged Community	7	13%
Other PG&E Territory	49	87%
PROGRAM PARTICIPATION		
EV Charge Owner	44	79%
EV Charge Sponsor	12	21%

5.2 Construction

As soon as a project is approved for participation in the EV Charge Network program, PG&E assigns a project manager to connect with the customer and guide the site from design to activation. This includes coordinating with one of PG&E’s competitively selected Engineer, Procure and Construct (EPC) vendors to complete the design, permitting, and construction for EV charging sites.

In Q1 2018, PG&E finalized a partnership with Black & Veatch and Cupertino Electric to complete design and construction for the program. In Q2, Cupertino Electric completed construction of five projects comprised of four EV Charge Owner and one EV Charge Sponsor sites. Black & Veatch completed six designs but have been delayed in construction. PG&E also continues to work with an internal crew.

At the end of Q2 2018, PG&E had a pipeline of 43 approved sites which represents 637 ports³ and provides a pipeline of construction through September 2018.

5.3 Operational Metrics

Through the end of Q2 2018, PG&E had completed installation of 7 sites for the EVCN program. The following metrics reflect construction and installation of approved sites through June 30, 2018.

TABLE 5.2 SUMMARY OF NUMBER OF PORTS AND INSTALLATION

Number of total ports approved	637
Number of ports installed	80
Average number of ports approved per site	15
Average number of ports installed per site	11
Average time for each installation step	Insufficient data to report in Q2 2018
Average total installation time	

3. This excludes approved sites considered “at risk” of being waitlisted or cancelled.

FIGURE 5.2 NUMBER OF PORTS INSTALLED BY EVSE MAKE AND MODEL



5.4 Program Costs

In Q2 2018, PG&E spent \$ 3,636,345 for a total program spend of \$12,773,059 out of the \$130 million

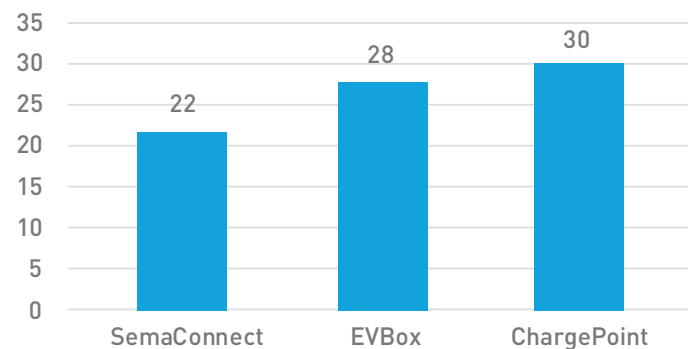
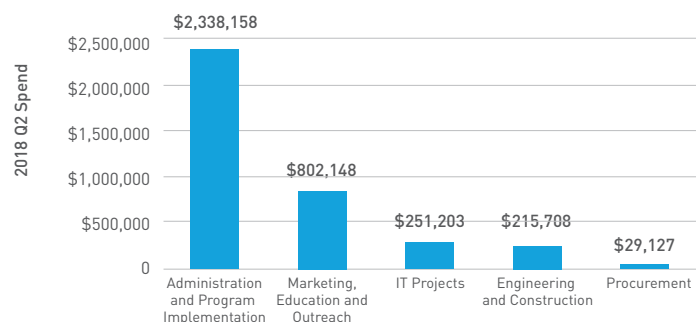


FIGURE 5.3 EVCN Q2 2018 PROGRAM SPEND



authorized budget. Figure 5.3 details Q2 program spend for each of the categories, Administration and Program Implementation; Marketing, Education, and Outreach; IT Projects; Engineering and Construction, and Procurement. Table 5.4 provides a summary of anticipated 2018 spend, 2018 program costs year to date and percent of allocated 2018 budget spent.

TABLE 5.4 SUMMARY OF 2018 PROGRAM SPEND

	2018 Year To Date Forecast	2018 Year To Date Spend	% of Year to Date Forecast
Total Program Cost through Q2	\$8,826,650	\$6,002,411	68%
Average Cost per Site (including TtM ⁴ , BtM ⁵ , & Rebate)	\$140,000	\$135,367	97%
Average Cost per Port (including TtM, BtM, & Rebate)	\$14,000	\$13,537	97%
Charger Cost per Port	N/A	\$0	N/A
Total Rebate Reserved	\$2,920,648	\$19,550	1%

4. TtM: to the meter

5. BtM: Behind the meter

6. Supplier Diversity

PG&E is committed to diversity in the workplace and with the companies with which we do business. Our Supplier Diversity program provides vital opportunities for businesses owned by women, minorities, service-disabled veterans and lesbian, gay, bisexual and transgender (LGBT) individuals. Supplier diversity will be scored as part of the RFQ and RFP process for the EV Charge Program and will be incorporated in any contracts for services as part of this program.



7. Program Advisory Council Feedback

The second PAC meeting of 2018 was held on June 20, 2018 and included a diverse group of stakeholders. Twenty-six organizations attended, including representatives from the EV charging station industry, non-profits, government entities and community choice aggregators. The table below describes the distribution of the stakeholders present at the meeting.

TABLE 7.1 – DISTRIBUTION OF PG&E PAC MEMBERS

ORGANIZATION TYPE	NUMBER OF PARTICIPANTS
Electric Vehicle Service Providers	8
Non Profit	4
Government	11
CCA	3
Industry Group	6
TOTAL	32

PG&E captured stakeholder comments during the meeting and also collected feedback by email submission after the meeting. PG&E has provided responses to the questions and comments in the Appendix.

8. Conclusion

At the end of Q2, PG&E had completed construction of 7 sites with a total of 80 ports installed. The program has approved a total of 56 applications, confirming 637 ports that are working through design and will be moving into construction in the second half of 2018. A total of three sites were activated through the end of Q2, providing PG&E with preliminary utilization data that will contribute to driver behavior insights through the end of 2018. PG&E continues to identify opportunities for process improvement while ensuring a positive customer experience.

PG&E values the feedback and input stakeholders have provided through the Program Advisory Council meetings, and looks forward to continued collaboration with participants.



9. Appendix

9.1 Summary of Program Advisory Council Comments and PG&E Response

The following PAC members provided comments during or after the meeting:

PAC MEMBER NAME	PAC MEMBER ORGANIZATION
Liam Weaver	California Public Utilities Commission
Aleka Seville	Sonoma County Regional Climate Protection Authority
Nina Robertson	Earthjustice
Julie Blunden	EVgo
Bonnie Datta	Siemens
Philip Kreycik	The Cadmus Group
Audrey Neuman	California Public Utilities Commission
Christina Jaworski	Santa Clara Valley Transportation Authority
Phil Villagomez	Shell New Energies
Lillian Rafi	Small Business Utility Advocates

9.2 Direct Program Advisory Comments

The table below describes the comments received from PAC members and PG&E's response.

A. Marketing, Education and Outreach

QUESTION	PG&E RESPONSE
Why did PG&E select the specified geographies to target for the customer acquisition strategy? Is PG&E partnering with Santa Rosa?	The customer (program participant) will always be the customer of record with PG&E and will pay the electricity bill. Program participants have the opportunity to recover all or a portion of these costs through driver pricing.
Does the early spike in applications correlate to website launch?	Stockton and Fresno were selected to support the program's disadvantaged community target. PG&E is implementing more of a strategic partnership with Santa Rosa to support the rebuild effort.
Does PG&E have outreach strategies that have proven successful in disadvantaged communities?	It is too soon to point to any specific tactics that have been successful in disadvantaged communities. We are exploring the opportunity to pair EVCN with other incentives, partnering with CCAs and other organizations.
Will PG&E be doing outreach to other regions after these targeted geographies?	Yes, we will be adding more geographies as we want to serve our entire geography and we have multiple years to reach various regions.
What other barriers to participation is PG&E seeing in addition to sites being cost prohibitive?	The inability for sites to meet 10 port minimum is often a barrier to eligibility.
Regarding the reason for waitlist being customer unresponsiveness, what processes does PG&E have in place to ensure that project managers are responding to site hosts in a timely manner and are actively engaged in project development?	PG&E does have key performance indicators to ensure project managers are responding to customers in a time efficient manner. We have had an issue with customers not responding to PG&E, but overall PG&E project managers have been thoroughly engaged in project development.

QUESTION	PG&E RESPONSE
At what point in the new eligibility assessment process does the site host indicate their hardware choice and supply that to PG&E? What formal process will be utilized to notify the vendor that they have been selected?	PG&E has developed a charger selection form that we provide to the customer in the customer acceptance packet. We do not require a hard deadline for this, or for it to be completed as part of program acceptance, but this is something that will be completed after acceptance, once the customer begins working with the project manager on finalizing design.

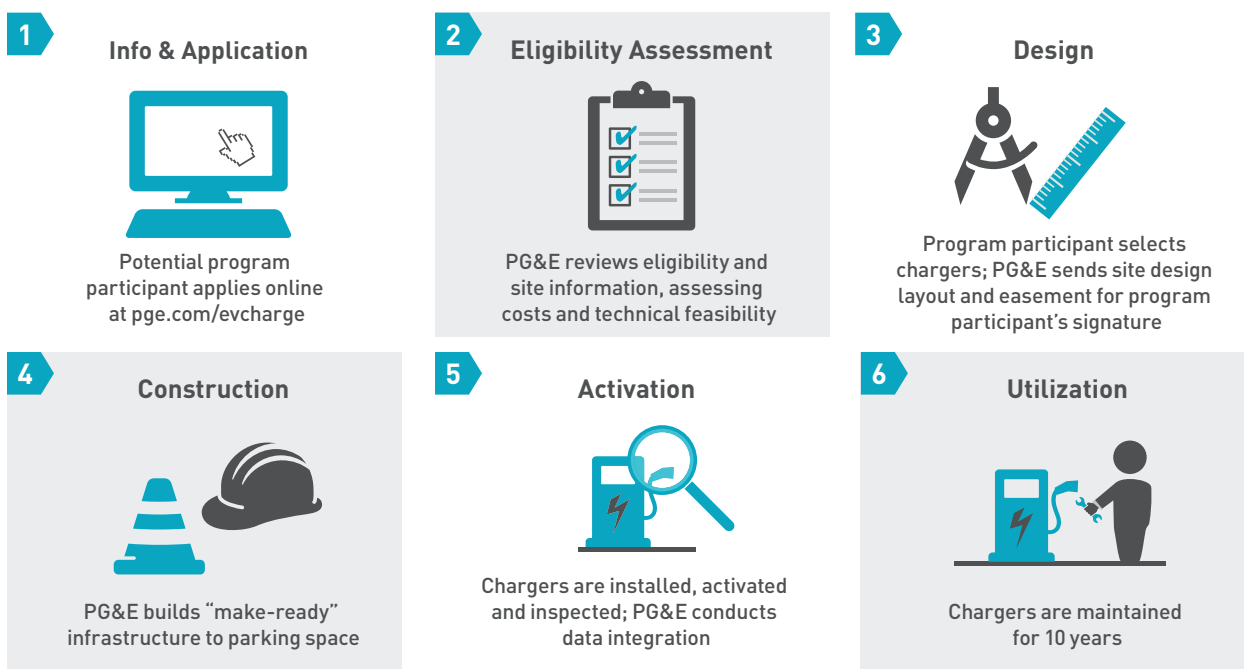
B. Construction

COMMENT	PG&E RESPONSE
Can PG&E provide quotes on charger installation from the selected contractors to site hosts so they can get a sense of this cost?	One of PG&E's contractors has provided an installation cost at about \$700 per port. Customers can work with their project manager to get further information including a quote from the second contractor as they are interested.
Why are there so many ports projected to be installed in San Ramon? How many sites are to service public transit?	PG&E received an application from a customer in San Ramon that applied for many ports at a large site. None of the chargers are for public transit. PG&E will focus on public transit in SB350 standard review projects.
Does PG&E have any statistics around average wait time for permits?	Each jurisdiction has different processes and timelines to get the required permits, but PG&E has experienced a timeline of 2-10 weeks to obtain permits.
What is PG&E's experience working with local governments when installing at a government workplace site?	PG&E has not gone through the complete process with a local government site yet.
Does PG&E advise on open vs proprietary chargers?	All chargers qualified and installed through the EVCN program must be OCPP and OpenADR compliant. PG&E will explore if additional requirements need to be included in the future.
What results has PG&E seen from the approach of looking at sites with excess transformer capacity?	We have implemented a tool to assess transformer capacity and transformer proximity to charger installation location before encouraging a lead to submit an application. This is a helpful approach to bring in qualified customers.

10. Appendix B

PG&E has established a six step process that guides customers through the EV Charge Network program.

- 1. Info & Application:** Potential program participants apply online at www.pge.com/evcharge.
- 2. Eligibility Assessment:** PG&E reviews eligibility and site information, assessing costs and technical feasibility.
- 3. Design:** If the site is approved, the program participant selects their chargers, and PG&E sends the site design layout and easement for signature. If the program participant is an EV Charge Owner, they submit their proof of purchase for the chargers; if an EV Charge Sponsor, they submit their participation payment.
- 4. Construction:** PG&E builds the “make-ready” infrastructure to the parking spaces.
- 5. Activation:** Once construction is complete, chargers are installed, activated and inspected, and PG&E conducts data integration. If the program participant is an EV Charge Owner, PG&E issues the rebate
- 6. Utilization:** The chargers are maintained for the life of the program (10 years) – by the program participant, in the case of EV Charge Owner; by PG&E, in the case of EV Charge Sponsor.



11. Appendix C

PG&E conducts a thorough review of all vendor applicants based on pre-determined criteria. All EVSE packages approved through the RFQ meet the following minimum requirements:

Hardware Requirements:

- Include a commercial-grade Level 2 EVSE.
- Must be able to supply an output current of at least 30 amps per port minimum at 208/240 volts.
- Include a charge connector compliant in SAE J1772.
- Compliant with NEC article 625.
- Rated for outdoor usage, NEMA 3R or better and an operating temperature range of: - 22 to 122F.
- Shall be network ready — able to communicate with an EVSE management service and use Open Charge Point Protocol (OCPP 1.5 or later).
- ADA Compliant.

Software & Network Requirements:

- Software to control, operate, communicate, diagnose, and capture data.
- The vendor shall provide network services capable of tracking usage, collecting data, billing customers and managing electrical loads.
- The EVSE software shall be certified to receive an OpenADR 2.0b signal.

Vendor Requirements:

- The EVSE Package(s) must be inclusive of all hardware, software, and network services.
- Vendor is an authorized distributor or reseller of specified EVSE hardware and software and authorized to provide the required services.
- Vendor is regularly and continuously engaged in the business and have EVSE installed and operational in the United States for at least three years immediately preceding the bid due date.
- Vendor shall be able to service the entire PG&E Service Territory.